

REMARKS/ARGUMENTS

Upon entry of this amendment, claims 1-11, 20-30, 39-49, 82-86, 89-94, 97-102, and 105 will be pending in this application. Claims 1-11, 20-30, and 39-49 were withdrawn without prejudice. Additionally, claims 87, 88, 95, 96, 103 and 104 were canceled without prejudice in any manner, and claims 82, 89, 90, 97, 98 and 105 were amended. No new matter has been added. Reconsideration is respectfully requested.

Interview Summary

Applicants would like to thank Examiners Marschel and Mahatan for the interview conducted on June 2, 2005. During the interview, Applicants' attorney discussed with the Examiners about rejections of claims 82-105 made in the Office Action mailed Feb. 9, 2005. The Examiners explained to Applicants' attorney the claim rejections made under 35 U.S.C. § 112, 1st paragraph and 2nd paragraph. Applicants' attorney and the Examiners discussed the relationship between "a plurality of criteria" recited in claims 82, 90, and 98, and the five criteria disclosed in paragraph [0058], page 16 of the specification.

Claim Rejections under 35 U.S.C. § 112 1st Paragraph

The Examiner rejected claims 82-105 on the basis of new matter and scope of enablement. Specifically, the Examiner stated that it was acknowledged the specification provides for five (5) specific criteria to be utilized in the selection of hits (i.e. hits to be kept), however, there does not appear to be support throughout the specification for the broad language of "a plurality of criteria." Office Action mailed Feb. 9, 2005, page 4. In addition, the Examiner stated that the specification, while being enabling for five (5) specific criteria for selection of hits via the threshold curve analysis, does not reasonably provide enablement for all other criteria(s) for the selection of a plurality of hits. Id. To expedite prosecution of the above identified

application, Applicants have amended claims 82, 89, 90, 97, 98, and 105 without prejudice in any manner.

A. Claim 82

Amended claim 82 does not recite “a plurality of criteria,” and instead includes “the automatically selecting a plurality of hits comprises determining a threshold for each of the plurality of models” and “the determining a threshold comprises performing a curve analysis” as recited by canceled claims 87 and 88. Applicants respectfully submit amended claim 82 has overcome the rejection under 35 U.S.C. § 112 1st paragraph. Support for the amendments can be found in the specification. No new matter has been added.

For example, the specification of the above identified application recites “[i]n preferred embodiments, automated threshold analysis is used to distinguish between hits and non-hits, allowing the results for each HMM to be analyzed in an unsupervised annotation.” See paragraph [0047], page 12 of the specification (emphasis added). Additionally, the specification also recites the following:

In preferred embodiments, the threshold analysis is performed with a curve analysis. In a particularly preferred embodiment, five criteria are used to distinguish the hits to be kept: (1) when the E-values rise above a value of e-05 they are discarded regardless of the other criteria; (2) the first ten hits are kept provided they score better than e-05; (3) the hits more than 70% of the log of the maximum score are automatically kept; (4) the point where the E-value plot drops abruptly or flattens is used as a threshold; (5) no more than a maximum number of hits (e.g., 1000) are kept.

See paragraph [0048], pages 12-13 of the specification (emphasis added). Therefore, in preferred embodiments, threshold analysis is used to distinguish between hits and non-hits, and performed with a curve analysis. In a particularly preferred embodiment, the five criteria are used to distinguish the hits to be kept. Accordingly, the five criteria are not required for other preferred embodiments. The claim amendments are fully supported by the specification.

B. Other claims

In light of above, it is asserted that pending claims 83-86, 89-94, 97-102, and 105 can also overcome the rejections under 35 U.S.C. § 112 1st paragraph for substantially the same reason as claim 82, and more particularly for the specific limitations they recite.

Claim Rejections under 35 U.S.C. § 112 2nd Paragraph

The Examiner rejected claims 82-105 as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner stated that the instant claims broadly encompass other criteria (i.e. plurality of criteria) beyond that disclosed in the specification and thus it is unclear what "a plurality of criteria" is intended to encompass. To expedite prosecution of the above identified application, "a plurality of criteria" has been deleted from independent claims 82, 90, and 98. Accordingly, Applicants respectfully submit that claims 82-86, 89-94, 97-102, and 105 have overcome the rejections under 35 U.S.C. § 112 2nd paragraph.

Claim Rejections under 35 U.S.C. §§ 102 and 103

Claims 82, 84-87, 90, 92-95, 98, and 100-103 were rejected under 35 U.S.C. § 102(e) as being anticipated by Benner. Additionally, claims 82-87, 90-95, and 98-103 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Benner in view of Eddy.

Applicants note with appreciation that these rejections do not cover claims 88, 89, 96, 97, 104 and 105. To expedite prosecution of the above identified application, Applicants have incorporated limitations of canceled claims 87 and 88 into claim 82, limitations of claims 95 and 96 into claim 90, and limitations of claims 103 and 104 into claim 98. Hence it is asserted that amended claims 82, 90, and 98 have overcome the rejections under 35 U.S.C. §§ 102(e) and 103(a).

In light of above, it is also asserted that claims 83-86 and 89 have overcome the rejections under 35 U.S.C. §§ 102(e) and 103(a) for substantially the same reason as claim 82, and more particularly for the specific limitations they recite. Additionally, claims 91-94 and 97 have overcome the rejections under 35 U.S.C. §§ 102(e) and 103(a) for substantially the same reason as claim 90, and more particularly for the specific limitations they recite. Moreover, claims 99-102 and 105 have overcome the rejections under 35 U.S.C. §§ 102(e) and 103(a) for substantially the same reason as claim 98, and more particularly for the specific limitations they recite.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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